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ABSTRACT

This article describes work on a new tool to help educators increase parental involvement in their schools using the Educational Resources Information Center (ERIC). When the authors set out on their goal in rural Hart County, Kentucky, they discovered that no instrument existed to measure changes in the level of parental involvement. Using research material found in the ERIC database, the team set about building a new, reliable, and valid instrument. They based their work on activities that already had proven to reflect parental involvement and came up with 30 items, each consisting of a statement about some kind of parental involvement. Parents receiving the survey were asked to indicate, on a five-point scale, how much they agreed with the statements. The team planned to compare scores taken before and after the parental-interest project had carried out some of its activities, thereby determining resulting changes in parental interest. Initial tests show the new instrument to have high reliability, although the project is preliminary. The document includes a copy of the 30-item survey questionnaire and a 31-table summary of data gathered in the instrument's first administration in Hart County. (TES)

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Grassroots Development: Applying ERIC Resources in a Small, Rural School District

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Grassroots Development: Applying ERIC Resources
in a Small, Rural School District

This article introduces our work on a new tool to help those interested in making their schools better by improving the level of parental involvement. We offer it as an example of how educators and commu..ity members, working together, can plan and carry out a systematic school improvement project. We hope that it will be read not only by educators, but by other citizens as well, particularly by concerned parents. We highlight an important tool used in our work, the federally-funded Educational Resources Information Center (ERIC), a computer-searchable database of writings on education.

The School Effectiveness Literature

Our discussion begins by placing the issue of parental involvement in the context of what has become known as the "school effectiveness literature." In general, we know that:

- providing more books, more computers, and better facilities <u>does not</u> generally cause students in a school to learn more;
- what <u>does</u> make a difference is how those responsible for schooling use the resources at hand -- whatever they are;
- some schools with lots of resources do <u>worse</u> than we might expect, and some schools with meager resources do <u>better</u> than we might expect;
- we have a lot of ideas -- based on a lot of research -- about how educators and citizens might act to make things better; and
- in particular, wide consensus exists on the benefits of involving parents in the education of their children.

The Immediate Context

If we are interested in making things better, however, we need a way to measure the changes that occur, for example, in the level of parental involvement. Increasing the level of parental involvement is the goal of a project with which we are active in a small, rural school district (Hart County, Kentucky), where two of us work as administrators. The issue of parental involvement in Hart County, we should tell you, was selected for the school improvement project by a group of educators and citizens who studied the needs of the schools there over a three-month period early in 1988. The Appalachia Educational Laboratory (AEL), where the other two coauthors work, provided technical assistance to the project. The group selected this issue after considering several other issues that research conducted by the project suggested were good choices, too. The other choices included expecting the best from all students and improving the way in which classtime was used.

The consensus of the group -- which was balanced for gender, race, and geographic location within the district -- was strong, however. Everyone involved agreed that they would be doing something important if they could improve the level of parental involvement in a variety of different activities related to schooling.

At one point in our discussions, the superintendent, who attended all the meetings as an ex officio member of the group, asked a pointed question, which helped stimulate the work reported below. He wanted to know how we as a group would know if we had actually increased the level of involvement exhibited by parents in Hart County. The consultants

assured him it would be done with what is known in education as a "valid and reliable" instrument.

"Valid and reliable" means that an instrument really measures what it says it does (it's valid), and that if you use it twice with the same people in the same circumstances, you will very likely get the same results (it's reliable). Both characteristics are important. For example, it would not be valid to measure length with a measuring cup, and it would not be reliable to measure length with rulers that had inches of different size. Those are the pitfalls that a good instrument avoids.

Reliability and validity can be described in terms of a number, usually a "correlation coefficient." Correlation coefficients show the degree to which one measure changes when another one does. In the case of reliability and validity coefficients typically vary from 0 (no validity or reliability) to 1.00 (perfect validity or reliability). A coefficient of .80 is usually considered a good reliability for an instrument that tries to measure changes in a whole group of people. A coefficient of .90 is considered an adequate reliability for an instrument that tries to measure changes in an individual person.

However, it turns out that the consultants didn't know what they were saying. There were no such instruments available to measure changes in the level of parental involvement.

The Larger Context

We had thought that, since there was widespread agreement on the importance of parental involvement in the literature of school effectiveness, someone would surely have developed a "valid and reliable"

way to measure changes in the level of parental involvement. After all, we knew that there was more to parental involvement than just counting noses at PTA meetings. Some researcher, someplace, must have solved this problem, we thought. Boy, were we wrong. We hadn't intended to reinvent the wheel, of course, and we were surprised to find this particular wheel hadn't been invented yet.

Where We Started: ERIC

How did we find out we were wrong? We checked the ERIC database. The ERIC database is an archive of virtually all journal articles, unpublished papers, and small-circulation reports produced on education in the last 25 years. The database is not really very hard to use, and it can be searched electronically. Consulting ERIC is good insurance against reinventing the wheel, and, as we discovered it's also a good resource if you have to invent a wheel.

In fact, libraries and school districts are beginning to acquire microcomputers hooked up to compact discs (CD-ROM) that contain the complete ERIC indexes, including summaries of all the articles and documents (over 700,000 of them). In the future, more and more local school districts will probably be installing CD-ROM players for this purpose. The cost is quite reasonable when you consider that the ERIC database is an excellent professional library.

In any case, our search of the ERIC database turned up just four instruments directed at measuring parental involvement. None was designed to measure changes in the level of parental involvement. Three of them had been designed to get answers about specific activities conducted by

local projects scattered around the country. None of the three had any reliability or validity figures.

The fourth instrument was a 200-question survey of parents' attitudes on most of the issues that the school effectiveness literature had identified as important, the Parent Attitudes Toward School Effectiveness questionnaire, designed by Robert Gable and colleagues at the University of Connecticut. Dr. Gable generously allowed us to adapt items from his scale for our purposes. It did have some reliability figures.

What did this mean to us? It meant we would have to develop our own instrument, but it also meant we had a place to start.

First, we seemed to have found a source of some reliable items, because some of the items on the 200-item survey had to do with parent involvement. Since they had worked before, they would probably work again. We also knew that we would have to write items of our own, since the 14 items that dealt with parental involvement on the 200-item survey did not cover the full range of activities that parents and educators might be involved in together.

Second, we knew that we would not be able to establish validity as a number (that is, as a correlation coefficient). Why? Numerical validity is based on correlating two different instruments, one of which is accepted by the field as valid. We didn't even have one valid instrument yet! We were breaking new ground.

Fortunately, in such a circumstance, there is a concept of validity that can apply to newly developed instruments: "content" or "face" validity. Establishing this type of validity depends on making a judgment that the instrument seems to touch on most of the attributes of

the thing you want to measure. If we relied on a good explanation of the nature of parental involvement in helping us write additional items, then we could establish content validity. In fact, quite a bit has been written about the nature of parental involvement, as we indicated above.

We chose to base our items on the work of Joyce Epstein, who has been writing for a while about four or five different sorts of activities that make up the idea of parental involvement. Hence, we based the kind of parental involvement measured by our instrument on the following five sorts of activities discussed by Epstein:

1. meeting the basic needs of children,
2. communicating with teachers and administrators,
3. involvement of parents in activities at school,
4. involvement of parents in activities at home, and
5. involvement of parents in making decisions about certain kinds of educational policy.

These characteristics are very nicely summarized several articles by Epstein that are archived in the ERIC database.[1]

Using Epstein's scheme, we divided the 14 relevant items from Dr. Gable's among these five sorts of activity and drafted 16 additional items, so that each sort of activity discussed by Epstein was represented by about six questions. The goal here was not to develop a way to measure the different sorts of activity separately, which would require a lot more items, a lot more time, and a lot more resources than we had. The goal

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[1]For example, "Parental Involvement: What Research Says to Administrators," published in Education and Urban Society, Vol. 19, No. 2, pp. 119-136, in February 1987.

was just to provide enough variety to represent the complete idea of "parental involvement" as described by Epstein in several articles.

The thirty draft items, together with the instructions and two sample layouts, were circulated to seven staff members at AEL and to a temporary committee of six citizens and educators in Hart County. The instrument was revised according to the recommendations made by these 13 reviewers.

Description of the Instrument

Our final version of the instrument, then, had 30 items. Each item consisted of a statement about some kind of parent involvement. Some statements were phrased positively, some negatively, a technique we used to help encourage those who responded to pay particular attention to each item. The instructions were simple and clear. We asked parents to indicate, on a five-point scale, how much they agreed or disagreed with the statements and send the completed form back to school with their children. A blank line at the top of the page was left for parents to indicate the name of the school their children attended. The questions appeared on two sides of a single page, and the instrument was attractively produced using desktop publishing.

When we scored the returns, we reversed the negatively-worded items and calculated total scores. Thus, total scores could vary from a low of 30 to a high of 150.

If our valid instrument proved to be reliable, we intended to compare the average score from this administration to the average score after our project had carried out some activities intended to stimulate interest in and action toward increasing the level of parental involvement. If the

average score after the project activities were significantly[2] higher than before, we would be able to say that we had achieved the goal of increasing the level of parental involvement.

Hart County principals mailed the instrument to the parents of every fourth student on their rosters. Their mailings included a cover letter from them, which asked the parents to return the form to the school in two weeks. About 200 returns were forwarded to AEL for analysis right on schedule from Hart County at the end of May, a return rate of about 35%. That kind of return rate is typical for such a procedure, but we would, of course, have preferred a higher return rate.

Results of the First Administration

Our goal was to measure changes in the level of parental involvement in Hart County as a whole. With the results in hand, we had data that could help us begin to establish the reliability of our instrument.

One kind of reliability coefficient used in work of this kind is called "Chronbach's alpha," after its developer, Lee Chronbach. The good thing about this coefficient is that it can be calculated from a single administration of an instrument of this type.

Before we calculated the reliability of the entire instrument, however, we wanted to make sure that each item was actually distinguishing between parents with high total scores and parents with low total scores: a basic principle in tests and measurements. It's called "item

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[2]"Significantly," as used here, is a statistical idea. It refers to the degree to which chance can be ruled out as a cause of observed differences. In this case, we've decided that we'll accept our differences as significant if the odds that they were produced by chance are less than 1 in 20.

discrimination." Our item discrimination was acceptable[3], though we'll probably try to improve it if the instrument is used in another project, and we have drafted revised items for that purpose.

When we calculated Chronbach's alpha, we were pleased to discover that our instrument demonstrated a high reliability, .97. Hence, we intend to use it again in an attempt to discover if our activities do increase the level of parental involvement in Hart County during the coming school year.

Our final test of the instrument's validity and reliability was a factor analysis to see if all the items really seemed to measure the same thing. After all, we developed our items to cover a variety of activities that we thought represented the idea of "parental involvement." Maybe they didn't really hang together very well. Factor analysis can show how a series of items forms subgroups. The theme of a subgroup is called a "factor." Our analysis showed that all of our items formed a single subgroup. That is, it showed that they "hung together" and reflected a single factor. What might that factor be called? Parental involvement.

So What?

This seems like an awful lot of work. It wasn't. It was extra work, however, because we hadn't thought it would be necessary. Altogether we spent perhaps 100 person-hours developing the instrument. In fact, each

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[3]Item discrimination can vary between -1.00 (meaning the item discriminates perfectly, but in the wrong direction) and +1.00 (meaning the item discriminates perfectly and in the right direction). A value of +.20 is generally accepted as the minimum for a functional item. The thirty items on our instrument all had an index of discrimination above +.22. We felt justified in retaining all items in calculating our reliability statistic.

of us contributed substantially less time than many individual teachers spend interacting with parents over the course of several months.

But it was a team effort, and it was interesting work. The ERIC database yielded up enough information to point us in the right direction and even did half of our work on item development. Everyone pitched in to help work up new items. AEL staff cooperated in designing the statistical analysis. With microcomputers everywhere and good statistics programs available, number-crunching is a lot easier than it used to be.

We want to stress again the important role that the resources of the ERIC database played in the project. Half of our items came from a resource in the database, and we used them because they had been proven to be useful. In addition, our idea of what constitutes parental involvement was accessible in the ERIC database. We are confident the instrument will be useful in Hart County. We hope we've also developed something that other educators may be able to build on.

What Next?

Although we have enough evidence to make the claim that our instrument is valid and reliable, and that it does indeed measure a single thing, there are still a lot of unanswered questions. Since no one seems to have developed such an instrument in the past, we cannot be very sure of the nature of our construct ("parental involvement").

In particular, we don't know if the construct reflected in this instrument is actually capable of much change. We get the impression from the school effectiveness literature and from conversations with educators that it is, but we can't be sure. If our second use of the instrument

(after we carry out our projects) doesn't show a significant increase in the level of parent involvement, we cannot immediately assume there is a problem with the activities. It is possible that the instrument measures a construct that isn't easily changed. We have to start someplace, however. So we'll take the chance.

Other questions concern alternatives that we haven't investigated. For example, would it be useful to develop a 10-item short form? (It might increase return rates or lend itself to a telephone administration.) Should we use the instrument to assess the involvement of individual parents? (The reliability does seem to be high enough.) Should we develop separate forms for elementary and secondary levels? (Probably, because the nature of parental involvement is quite different in high schools and elementary schools.)

We hope to get the chance to confront these questions in our future work. We intend to submit a technical report of our work to the ERIC Clearinghouse on Tests and Measurement. If they select the document to include in the ERIC database, it will be accessible to other educators in the near future.

Using Educational Resources in Rural Schools

Is it reasonable to expect harried rural educators and community members to engage in this sort of work? We think it is, and we've seen examples--the work reported here is just one of many.

Whether or not it can happen in your school district depends in part on the organizational climate there. Do people think it is important for teachers and administrators to keep growing professionally? Are teachers

and administrators looking for new projects that increase their sense of efficacy? Is the organization open enough to allow everyone to appreciate one another's talents and the talents of people in the local community? If so, you're ready to do this sort of work, and maybe you're already doing something like it.

But it also depends on the accessibility of educational resources. The ERIC database contains a host of resources for almost every conceivable activity and idea in education. Of course, you need to exercise your own judgment about what to use, based on your own conclusions about education. For example, we might have approached this project differently, but the character of Hart County, the issues that were considered important there, and the views of the consultants led us to go the way we did. A different place, a different set of needs, and a different array of talents would certainly have produced something that looked quite different.

There is, however, enough in the ERIC database to accommodate those differences very well. In the future, the ERIC database will become more familiar and more accessible to local educators and to parents and community members as well.

The authors would like to thank Pat Cahape, Merrill Meehan, Jack Sanders, and Beth Sattes for their assistance. Todd Strohmenger, Director of AEL's Rural, Small Schools Program and of the ERIC Clearinghouse on Rural Education and Small Schools, has been actively involved in all aspects of this work. We greatly appreciate his support and encouragement.

AEL's Level of Parent Involvement Questionnaire*

Directions to parents: This questionnaire will give your school district information about how you as a parent feel about the school your child attends and about your role in the school.

If you have children at two schools, you may get two questionnaires. Please write the name of the school to which this information applies on the line below:

_____

For each question, please decide if you agree or disagree that the statement applies to your child's school. Then circle the number that comes closest to expressing your opinion:

1 = Strongly Disagree
2 = Disagree
3 = Not Sure
4 = Agree
5 = Strongly Agree

1.	Teachers in this school use either phone calls, newsletters, regular notes, or parent conferences in addition to report cards to communicate my child's progress to me.	1	2	3	4	5
2.	Parents learn from the teachers specific ways to help their children with their homework.	1	2	3	4	5
3.	The school's teachers and principals are open to parents' suggestions and involvement.	1	2	3	4	5
4.	Someone from my family has volunteered time or money to the school during the last twelve months..	1	2	3	4	5
5.	Teachers do not contact parents regularly to discuss student progress.	1	2	3	4	5
6.	The school staff do not send parents booklets about nutrition, health care, or raising children.	1	2	3	4	5
7.	Most of the teachers communicate frequently with parents.	1	2	3	4	5
8.	I feel welcome when I visit my child's school.	1	2	3	4	5
9.	I have visited my child's school at least twice in the past year.	1	2	3	4	5
10.	There is an active parent/school group.	1	2	3	4	5
11.	The school does not offer to parents classes about child growth and development.	1	2	3	4	5
12.	Teachers seek ideas and suggestions from parents.	1	2	3	4	5
13.	The teachers or principal inform parents about what students need in order to study effectively at home.	1	2	3	4	5
14.	I believe that my child's teachers care about what my child's home life is like.	1	2	3	4	5
15.	In general, the staff is frank and open with parents and students.	1	2	3	4	5
16.	The school staff help parents to be aware of family services that are available from other agencies (for example, Health Department, ASCS, or the Department of Human Services).	1	2	3	4	5
17.	It is difficult for parents to contribute to decisions made at this school.	1	2	3	4	5
18.	Parents are aware that teachers are willing to help their children with specific needs or concerns.	1	2	3	4	5
19.	It is easy to make appointments to meet with teachers.	1	2	3	4	5
20.	Teachers do not encourage parents to help their children make the most of their years in school.	1	2	3	4	5
21.	Very few parents visit the school.	1	2	3	4	5
22.	If my child got into trouble at school, I think that the school staff would do the right thing in dealing with the problem	1	2	3	4	5
23.	The principal leads frequent discussions about instruction and achievement with parents.	1	2	3	4	5
24.	Parents are not encouraged by the school staff to read to their children at home, or to show an interest in their children's reading.	1	2	3	4	5
25.	It is difficult to make appointments with the principal to discuss instructional issues.	1	2	3	4	5
26.	Parents who need help in feeding and clothing their children can get help or useful information from the school.	1	2	3	4	5
27.	The principal brings instructional issues (such as improving teaching) to parents for discussion.	1	2	3	4	5
28.	I expect my child to earn grades of C or better, and I make sure my child knows that is what I expect.	1	2	3	4	5
29.	The principal communicates the mission of the school to parents.	1	2	3	4	5
30.	Teachers send classwork home for me to look at.	1	2	3	4	5

THANK YOU FOR YOUR COOPERATION WITH THIS SURVEY.

* Some items adapted from the **Parent Attitudes Toward School Effectiveness Questionnaire**, by Robert Gable, Christine Murphy, Christopher Hall, and Ann Clark (1986). ERIC DocumentReproduction Service No. ED 277 733. Used by permission.

Description of the "PATSE"

Gable, R., Murphy, C., and Hall, C. (1986, April). The Development of the Pilot Form of the Parent Attitudes toward School Effectiveness (PATSE) Questionnaire. Paper presented at the Annual Meeting of the National Council on Measurement in Education, San Francisco, CA. (ERIC Document Reproduction Service No. ED 277 733)

The development of the Parent Attitudes toward School Effectiveness (PATSE) questionnaire was conducted in two phases. The pilot test form contained 47 items reflecting parents' attitudes toward 6 categories: (1) school and community relationships; (2) clear school mission; (3) high expectations; (4) safe and orderly environment; (5) instructional leadership; and (6) frequent monitoring of student progress. The measure was constructed in a five-point Likert rating scale format, including both negatively and positively worded statements. The categories and items were generated from literature reviews on school effectiveness, teacher questionnaires used in the Connecticut Secondary School Effectiveness Project, and an expert panel. The measure was completed by about 30 percent of parents receiving a mail survey; item analyses and reliability data were generated from the 625 respondents. Results supported use of the PATSE scales. A few items were able to be deleted, and high intercorrelations among scales were noted. Family and school variables were briefly examined. The second phase of test construction examined construct validity using principal component analysis and oblique rotation. Ten resulting components accounted for 55 percent of total variance. Sample score reports include the 47 items. An eight-page bibliography concludes the document. (GDC)

Hart County Parent Involvement Results, By School, June 88

This table contains a summary of data gathered in a random-sample survey of parents of Hart County (KY) students. Parents of every fourth student on school rosters were surveyed. The survey yielded 203 usable returns, with a response rate of 34%.

The questionnaire contained 30 Likert-type item about the involvement of parents in the education of their own children. Questions cover a wide range of parental involvement.

Joyce Epstein (1987) has written about five types of parental involvement with schools: communications, involvement centered at the home, involvement centered at school, involvement in meeting basic needs of children, and involvement in making decisions about how schools will operate. The survey items cover this range of activity, but the questionnaire does not purport to measure different sorts of parental involvement.

The data presented below are:

1. Discriminative index: extent to which the particular item distinguishes between parents whose total scores ranked in the top quartile of total score and those whose scores ranked in the bottom quartile of total score. All 30 items had a positive index of discrimination (range: +.23 - +.81).

2. Source: where the item came from. In general, even numbered items were developed by Hart County educators and citizens and AEL staff; most odd numbered items were adapted from items developed by Robert Gable and colleagues at the University of Connecticut for the "Parent Attitudes Toward School Effectiveness (PATSE) Questionnaire."

3. Epstein Category: the category (Epstein, 1987) to which the item was judged to belong.

4. Descriptive statistics: Means and standard deviations for the entire sample (n =203) and for each school. Subsample size and sample proportion are also reported. **Please note that negatively worded items (i.e., items 5, 6, 8, 10, 13, 17, 20, 21, 24, and 25) were reversed prior to scoring. Thus, to interpret the means correctly, you must mentally rephrase the item to read positively.**

5. Item-ranking code: the symbols "<" (less than) and ">" (greater than) identify, respectively, those items that were ranked among the lowest (<) or highest (>) seven items for the entire sample or for each school subsample.

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Item 1 Discriminative index = +.44
Source: PATSE Epstein Category: Communications

Teachers in this school use either phone calls, newsletters, regular notes or parent conferences in addition to report cards to communicate my child's progress to me.

	Mean	S.D.	N	Pct.
> Entire sample	3.985	0.987	203	100.0
> Bonnieville	4.268	0.807	41	20.2
> Cub Run	4.238	0.768	21	10.3
Hart County High	3.065	1.340	31	15.3
> LeGrande	4.190	0.512	21	10.3
> Memorial	4.024	0.950	42	20.7
> Munfordville	4.106	0.814	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

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Item 2 Discriminative index = +.81
Source: Hart County/AEL Epstein Category: Home

Parents learn from the teachers specific ways to help their children with their homework.

	Mean	S.D.	N	Pct.
< Entire sample	3.148	1.164	203	100.0
< Bonnieville	2.976	1.060	41	20.2
Cub Run	3.619	1.024	21	10.3
< Hart County High	2.484	1.092	31	15.3
LeGrande	3.714	1.007	21	10.3
< Memorial	3.143	1.160	42	20.7
Munfordville	3.277	1.228	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

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Item 3 Discriminative index = +.44
Source: PATSE Epstein Category: Decisionmaking

The school's teachers and principals are open to parents' suggestions and involvement.

	Mean	S.D.	N	Pct.
> Entire sample	3.764	0.946	203	100.0
> Bonnieville	3.780	1.129	41	20.2
Cub Run	3.667	1.017	21	10.3
> Hart County High	3.548	0.888	31	15.3
> LeGrande	4.000	0.775	21	10.3
> Memorial	3.833	0.824	42	20.7
Munfordville	3.766	0.960	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

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Item 4 Discriminative index = +.31
Source: Hart County/AEL Epstein Category: School

I know parents who have volunteered their time for activities in the schools.

	Mean	S.D.	N	Pct.
> Entire sample	3.995	0.755	203	100.0
> Bonnieville	4.146	0.691	41	20.2
> Cub Run	4.143	0.573	21	10.3
> Hart County High	3.677	1.045	31	15.3
LeGrande	3.952	0.740	21	10.3
> Memorial	3.881	0.739	42	20.7
> Munfordville	4.128	0.612	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

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Item 5 Discriminative index = + .63
Source: PATSE Epstein Category: Communications

Teachers do not contact parents regularly to discuss student progress.

	Mean	S.D.	N	Pct.
Entire sample	3.241	1.257	203	100.0
Bonnieville	3.341	1.257	41	20.2
Cub Run	3.571	0.978	21	10.3
< Hart County High	2.452	1.207	31	15.3
LeGrande	3.571	1.248	21	10.3
< Memorial	3.095	1.265	42	20.7
Munfordville	3.511	1.214	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

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Item 6 Discriminative index = +.23
Source: Hart County/AEL Epstein Category: Basic Needs

The school staff do not send parents booklets or pamphlets on school information, discipline, nutrition, or health care.

	Mean	S.D.	N	Pct.
Entire sample	3.729	1.169	203	100.0
Bonnieville	3.512	1.186	41	20.2
> Cub Run	3.905	1.091	21	10.3
Hart County High	3.355	1.330	31	15.3
LeGrande	3.952	1.117	21	10.3
Memorial	3.762	1.122	42	20.7
> Munfordville	3.957	1.103	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

****

Item 7 Discriminative index = +.73
Source: PATSE Epstein Category: Communications

Most of the teachers communicate frequently with parents.

	Mean	S.D.	N	Pct.
Entire sample	3.271	1.152	203	100.0
Bonnieville	3.341	1.109	41	20.2
Cub Run	3.571	0.926	21	10.3
Hart County High	2.226	0.990	31	15.3
LeGrande	3.714	1.007	21	10.3
Memorial	3.238	1.144	42	20.7
Munfordville	3.596	1.077	47	23.2

item ranking codes: [item 7 not among seven highest or lowest at any school]

****

Item 8 Discriminative index = +.35
Source: Hart County/AEL Epstein Category: Home

Parents are not encouraged to visit their children's classrooms or schools.

	Mean	S.D.	N	Pct.
> Entire sample	3.749	1.104	203	100.0
Bonnieville	3.585	1.264	41	20.2
> Cub Run	4.048	0.865	21	10.3
Hart County High	3.226	1.146	31	15.3
LeGrande	3.952	0.865	21	10.3
> Memorial	3.905	1.055	42	20.7
Munfordville	3.872	1.076	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

****

Item 9 Discriminative index = +.65
Source: PATSE Epstein Category: School

There is an active parent/school group.

	Mean	S.D.	N	Pct.
Entire sample	3.286	1.013	203	100.0
Bonnieville	3.195	1.030	41	20.2
> Cub Run	3.857	0.359	21	10.3
Hart County High	2.677	1.077	31	15.3
< LeGrande	3.476	0.928	21	10.3
Memorial	3.381	1.035	42	20.7
Munfordville	3.340	1.006	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

****

Item 10 Discriminative index = +.58
Source: Hart County/AEL Epstein Category: Basic Needs

The school does not offer to parents classes about child growth and development.

	Mean	S.D.	N	Pct.
< Entire sample	2.704	0.986	203	100.0
< Bonnieville	2.659	1.087	41	20.2
< Cub Run	2.667	0.658	21	10.3
< Hart County High	2.548	1.179	31	15.3
< LeGrande	3.190	0.981	21	10.3
< Memorial	2.929	0.947	42	20.7
< Munfordville	2.447	0.829	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

****

Item 11 Discriminative index = +.79
Source: PATSE Epstein Category: Decisionmaking

Teachers seek ideas and suggestions from parents.

	Mean	S.D.	N	Pct.
< Entire sample	3.113	1.049	203	100.0
< Bonnieville	3.049	1.048	41	20.2
< Cub Run	3.238	0.889	21	10.3
Hart County High	2.677	1.077	31	15.3
LeGrande	3.524	0.873	21	10.3
< Memorial	3.167	1.080	42	20.7
< Munfordville	3.170	1.090	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

****

Item 12 Discriminative index = +.73
Source: Hart County/AEL Epstein Category: Home

The teachers or principal inform parents about what students need in order to study effectively at home.

	Mean	S.D.	N	Pct.
< Entire sample	3.177	1.177	203	100.0
< Bonnieville	3.146	1.131	41	20.2
< Cub Run	3.429	0.978	21	10.3
< Hart County High	2.516	1.122	31	15.3
LeGrande	3.762	0.889	21	10.3
Memorial	3.357	1.165	42	20.7
< Munfordville	3.106	1.289	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

****

Item 13 Discriminative index = +.23
Source: PATSE Epstein Category: Communications

I know very little about the policies, academic programs, and activities of the school.

	Mean	S.D.	N	Pct.
Entire sample	3.438	1.104	203	100.0
Bonnieville	3.439	1.050	41	20.2
Cub Run	3.619	0.740	21	10.3
Hart County High	2.839	1.036	31	15.3
< LeGrande	2.667	1.111	21	10.3
Memorial	3.476	1.110	42	20.7
> Munfordville	4.064	0.942	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

****

Item 14 Discriminative index = +.60
Source: Hart County/AEL Epstein Category: Basic Needs

I believe that my child's teachers care about what my child's home life is like.

	Mean	S.D.	N	Pct.
Entire sample	3.724	1.026	203	100.0
> Bonnieville	3.805	1.054	41	20.2
Cub Run	3.762	0.995	21	10.3
Hart County High	3.000	1.183	31	15.3
> LeGrande	4.048	0.384	21	10.3
Memorial	3.810	0.994	42	20.7
Munfordville	3.894	0.961	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

****

Item 15 Discriminative index = +.48
Source: PATSE Epstein Category: Communications

In general, the staff is frank and open with parents and students.

		Mean	S.D.	N	Pct.
	Entire sample	3.695	0.898	203	100.0
	Bonnieville	3.707	0.929	41	20.2
	Cub Run	3.714	0.784	21	10.3
>	Hart County High	3.419	1.057	31	15.3
	LeGrande	3.810	0.602	21	10.3
	Memorial	3.595	0.939	42	20.7
	Munfordville	3.894	0.866	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

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Item 16 Discriminative index = +.58
Source: Hart County/AEL Epstein Category: Basic Needs

The school staff help parents to be aware of family services that are available from other agencies (for example, Health Department, ASCS, or the Department of Human Services).

		Mean	S.D.	N	Pct.
	Entire sample	3.394	0.869	203	100.0
	Bonnieville	3.171	0.919	41	20.2
<	Cub Run	3.429	0.811	21	10.3
	Hart County High	3.194	0.910	31	15.3
	LeGrande	3.667	0.856	21	10.3
	Memorial	3.524	0.804	42	20.7
	Munfordville	3.468	0.856	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

****

Item 17 Discriminative index = +.75
Source: PATSE Epstein Category: Decisionmaking

It is difficult for parents to contribute to decisions made at this school.

	Mean	S.D.	N	Pct.
Entire sample	3.271	1.010	203	100.0
Bonnieville	3.293	1.031	41	20.2
Cub Run	3.619	0.805	21	10.3
Hart County High	3.065	1.093	31	15.3
< LeGrande	3.381	0.865	21	10.3
< Memorial	3.119	0.889	42	20.7
< Munfordville	3.319	1.163	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

****

Item 18 Discriminative index = +.58
Source: Hart County/AEL Epstein Category: School

Parents are aware that teachers are willing to help their children with specific needs or concerns.

	Mean	S.D.	N	Pct.
Entire sample	3.655	0.938	203	100.0
Bonnieville	3.537	0.951	41	20.2
Cub Run	3.524	1.030	21	10.3
> Hart County High	3.419	1.057	31	15.3
> LeGrande	4.000	0.632	21	10.3
Memorial	3.643	0.932	42	20.7
Munfordville	3.830	0.892	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

****

Item 19 Discriminative index = +.40
Source: PATSE Epstein Category: Communications

It is easy to make appointments to meet with teachers.

	Mean	S.D.	N	Pct.
> Entire sample	3.862	0.845	203	100.0
> Bonnieville	4.073	0.818	41	20.2
> Cub Run	4.048	0.805	21	10.3
> Hart County High	3.419	0.958	31	15.3
LeGrande	3.857	0.478	21	10.3
Memorial	3.762	0.821	42	20.7
> Munfordville	3.979	0.872	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

****

Item 20 Discriminative index = +.56
Source: Hart County/AEL Epstein Category: Home

Teachers do not encourage parents to help their children make the most of their years in school.

	Mean	S.D.	N	Pct.
Entire sample	3.729	1.148	203	100.0
Bonnieville	3.561	1.285	41	20.2
> Cub Run	3.857	0.910	21	10.3
Hart County High	3.290	1.270	31	15.3
> LeGrande	4.095	0.889	21	10.3
> Memorial	3.833	1.102	42	20.7
Munfordville	3.851	1.122	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

****

Item 21 Discriminative index = +.77
Source: PATSE Epstein Category: School

Very few parents visit the school.

	Mean	S.D.	N	Pct.
< Entire sample	3.103	0.957	203	100.0
< Bonnieville	2.951	1.117	41	20.2
< Cub Run	3.190	0.814	21	10.3
< Hart County High	2.581	0.958	31	15.3
< LeGrande	3.333	0.796	21	10.3
Memorial	3.238	0.821	42	20.7
< Munfordville	3.319	0.935	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

****

Item 22 Discriminative index = +.31
Source: Hart County/AEL Epstein Category: Home

I know parents who have supported the teachers concerning the school behavior of their children.

	Mean	S.D.	N	Pct.
Entire sample	3.665	0.848	203	100.0
Bonnieville	3.683	0.960	41	20.2
Cub Run	3.810	0.512	21	10.3
> Hart County High	3.484	0.926	31	15.3
LeGrande	3.667	0.796	21	10.3
Memorial	3.643	1.008	42	20.7
Munfordville	3.723	0.682	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

****

Item 23 Discriminative index = +.71
Source: PATSE Epstein Category: Decisionmaking

The principal leads frequent discussions about instruction and achievement with parents.

	Mean	S.D.	N	Pct.
< Entire sample	2.872	1.059	203	100.0
< Bonnieville	2.780	1.151	41	20.2
< Cub Run	2.952	1.024	21	10.3
Hart County High	2.613	0.882	31	15.3
< LeGrande	3.381	1.024	21	10.3
< Memorial	3.095	1.078	42	20.7
< Munfordville	2.660	1.027	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

****

Item 24 Discriminative index = +.44
Source: Hart County/AEL Epstein Category: School

Parents are not encouraged by the school staff to read to their children at home, or to show an interest in their children's reading.

	Mean	S.D.	N	Pct.
> Entire sample	3.778	1.097	203	100.0
Bonnieville	3.610	1.222	41	20.2
Cub Run	3.762	1.044	21	10.3
Hart County High	3.161	1.214	31	15.3
LeGrande	3.905	1.091	21	10.3
> Memorial	4.143	0.843	42	20.7
> Munfordville	3.957	0.977	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

****

Item 25 Discriminative index = +.56
Source: FATSE Epstein Category: Decisionmaking

It is difficult to make appointments with the principal to discuss instructional issues.

	Mean	S.D.	N	Pct.
Entire sample	3.685	0.995	203	100.0
> Bonnieville	3.732	1.049	41	20.2
Cub Run	3.619	1.117	21	10.3
> Hart County High	3.419	1.025	31	15.3
LeGrande	3.905	1.044	21	10.3
Memorial	3.643	0.932	42	20.7
Munfordville	3.787	0.907	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

****

Item 26 Discriminative index = +.60
Source: Hart County/AEL Epstein Category: Basic Needs

Parents who need help in feeding and clothing their children can get help or useful information from the school.

	Mean	S.D.	N	Pct.
Entire sample	3.527	0.773	203	100.0
Bonnieville	3.293	0.814	41	20.2
Cub Run	3.667	0.658	21	10.3
> Hart County High	3.516	0.724	31	15.3
LeGrande	3.667	0.796	21	10.3
Memorial	3.429	0.770	42	20.7
Munfordville	3.702	0.778	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

****

Item 27 Discriminative index = +.71
Source: PATSE Epstein Category: Decisionmaking

The principal brings instructional issues (such as improving teaching) to parents for discussion.

	Mean	S.D.	N	Pct.
< Entire sample	2.783	0.869	203	100.0
< Bonnieville	2.561	0.950	41	20.2
< Cub Run	2.714	0.845	21	10.3
< Hart County High	2.484	0.851	31	15.3
< LeGrande	3.143	0.727	21	10.3
< Memorial	3.024	0.869	42	20.7
< Munfordville	2.830	0.789	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

****

Item 28 Discriminative index = +.38
Source: Hart County/AEL Epstein Category: Home

Parents show that they have high expectations for their children.

	Mean	S.D.	N	Pct.
Entire sample	3.700	0.852	203	100.0
Bonnieville	3.707	0.873	41	20.2
Cub Run	3.571	0.811	21	10.3
> Hart County High	3.548	0.850	31	15.3
> LeGrande	4.000	0.775	21	10.3
> Memorial	3.857	0.843	42	20.7
Munfordville	3.574	0.878	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

****

Item 29 Discriminative index = +.67
Source: PATSE Epstein Category: Communications

The principal communicates the mission of the school to parents.

	Mean	S.D.	N	Pct.
Entire sample	3.463	0.991	203	100.0
Bonnieville	3.341	1.175	41	20.2
< Cub Run	3.333	1.017	21	10.3
Hart County High	3.032	1.110	31	15.3
> LeGrande	4.048	0.498	21	10.3
Memorial	3.595	0.767	42	20.7
Munfordville	3.532	0.952	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

****

Item 30 Discriminative index = +.40
Source: PATSE Epstein Category: Home

Teachers send classwork home for me to look at.

	Mean	S.D.	N	Pct.
> Entire sample	3.911	1.054	203	100.0
> Bonnieville	4.049	0.999	41	20.2
> Cub Run	4.048	0.590	21	10.3
Hart County High	2.710	1.321	31	15.3
> LeGrande	4.333	0.577	21	10.3
> Memorial	4.000	0.911	42	20.7
> Munfordville	4.255	0.793	47	23.2

item ranking codes:
> = this item among highest-ranked seven items in sample at school indicated
< = this item among lowest-ranked seven items in sample at school indicated

Total Score

	Mean	S.D.	N	Pct.
Entire sample	104.419	17.252	203	100.0
Bonnieville	103.293	15.667	41	20.2
Cub Run	108.190	12.307	21	10.3
Hart County High	90.645	19.333	31	15.3
LeGrande	111.905	13.011	21	10.3
Memorial	106.143	14.229	42	20.7
Munfordville	107.915	18.803	47	23.2

References

Gable, R., Murphy, C., & Hall., C. (1986). The development of the pilot form of the "Parent Attitudes Toward School Effectiveness (PATSE) Questionnaire". Paper presented at the annual meeting of the National Council on Measurement in Education, San Francisco, CA.

Epstein, J. (1987). What principals should know about parent involvement. Principal, 66(3), 6-9.

National Rural and Small Schools Consortium, Third Annual Conference
Ft. Lauderdale, FL
March 9, 1989

"A Reliable Instrument to Measure Parent Involvement in Rural Schools"

Presenter: Craig Howley
ERIC Clearinghouse on Rural Education and Small Schools
Appalachia Educational Laboratory

Presentation Outline

I. Introductions

II. Nature of AEL Rural, Small Schools project
  A. Community Partnership for School Improvement model
    1. sites
    2. structure (transparency #1)
    3. function (transparency #2)
  B. Nature of projects selected
    1. KY, WV (parent involvement; school climate)
    2. TN, VA (parent involvement; middle school feasibility study)

III. Kentucky demonstration
  A. Hart County (transparency #3)
    1. school climate
    2. curriculum (vocational, accelerated program)
    3. community (ethnographic study)
  B. Consensus on parent involvement
    1. study group's rankings
    2. Steering Committee's rankings
  C. Superintendent's concern for evaluation
  D. Nature of improvement plan
    1. development of parent involvement instrument
    2. conference on parent involvement
    3. school projects (6 funded)
    4. teacher projects (20 funded)

IV. Initial research for parent involvement instrument (handout #1)
  A. ERIC search (4 instruments; 3 migrant; 1 general)
    1. search strategy
      (parent-participation or parent-school-relationship) and (dtn=160)

2. Robert Gable's PATSE
    a. many scales, including parent involvement
    b. item and scale reliability statistics
    c. 14 items specific to parental involvement

V. Theoretical basis for instrument development (handout #2: Epstein, 1987)
A. Joyce Epstein's work at Hopkins
1. five categories from Epstein (1987) (transparency #4)
    a. basic needs
    b. communications
    c. school
    d. home
    e. decisionmaking
2. application of Epstein's notion
    a. coverage of general construct of parental involvement
    b. no attempt to measure 5 independent subconstructs
B. Development of nev items
1. categorization of 14 items (judgmental)
2. development and categorization of 16 additional items
3. pilot test: 7 AEL staff members, 6 Hart County citizens
4. revisions indicated vord changes and directionality changes

VI. First use of instrument (handout #3: results by school)
A. Sample: every 4th student on rosters of all schools
B. 203 usable returns (34% response rate)
C. Discriminative index
1. assumption: global construct with underlying normal distribution
2. computed using total score, top vs bottom quartiles
3. all items had positive index, varying from +.23 to +.81
D. Alpha reliability
1. +.95
E. Results, generally (total score); (transparency #4)
1. grand μ = 104; grand σ = 17
2. secondary with lover mean, higher variability than 4 elementaries
    a. μ = 91; = 19 (1 school)
3. elementary means: μ = 103 to 112 (5 schools)
4. elementary variability: σ = 12-16 (4 schools); σ = 19 (1 school)

VII. Revision (handout #4: revised instrument)
A. revised all items with discriminative index belov +.40
(items 4, 6, 8, 13, 22, 28)
B. team of 5 AEL staff members commented on revisions
(item 13 vas dropped and item 8 vas split into two items)
C. "Results by School" handout has original items
D. "AEL's Level of Involvement Questionnaire" has revised instruments

VIII. Problematic nature of parental involvement in US schooling
- A. history of professional "expertise" vs. parental "incompetence"
- B. school effects of parental involvement
- C. unansvered question: to what extent is it an effect of SES?

IX. Recommendations for use **(handout #5: "Grassroots Development")**
- A. measures level--not quality--of parental involvement
- B. use to assess program impact on parents' perceptions (pre/post)
- C. refrain from comparing schools;
- D. if you must compare, determine significance levels of comparison

X. Offer
- A. If you want to use, contact AEL for procedures
- B. We will score in return for data; you put data on scantron forms

XI. ERIC/CRESS and AEL
- A. Clearinghouse services and products **(handout #6)**
  (database building; CD-ROM searches & workshops; publications)
- B. AEL services and products **(handout #7)**